

5310 0500
2602
PCT

09623516



2623

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

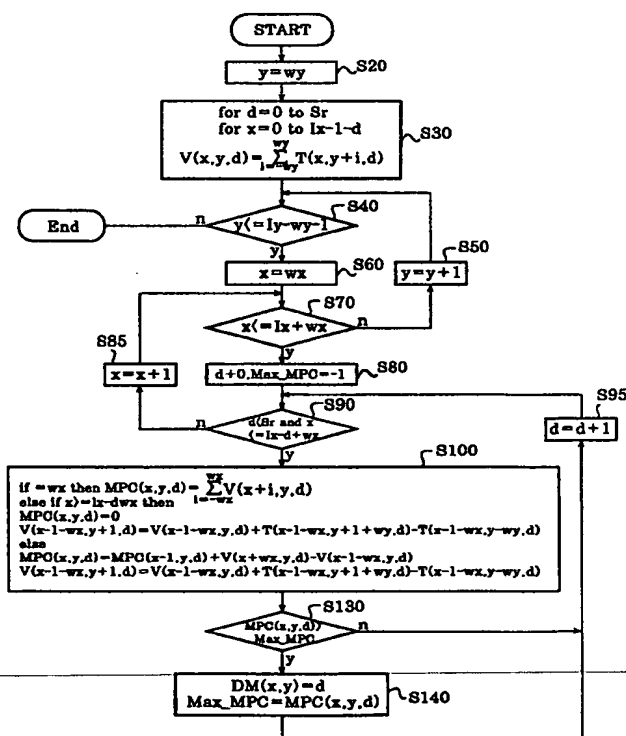
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : G06T 17/00, H04N 13/00		A3	(11) International Publication Number: WO 99/53681
			(43) International Publication Date: 21 October 1999 (21.10.99)
(21) International Application Number: PCT/KR99/00174		(81) Designated States: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 13 April 1999 (13.04.99)		Published With international search report.	
(30) Priority Data: 1998/13970 13 April 1998 (13.04.98) KR		(88) Date of publication of the international search report: 12 October 2000 (12.10.00)	
(71) Applicant (for all designated States except US): KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY [KR/KR]; 39-1, Hawolgok-dong, Seongbuk-ku, Seoul 136-791 (KR).		<div style="text-align: right;"> RECEIVED FEB 09 2001 Technology Center 2600 </div>	
(72) Inventors; and			
(75) Inventors/Applicants (for US only): KIM, Hyong, Gon [KR/KR]; 12-202 Seochowoosung Apt., 1336, Seocho-dong, Seocho-ku, Seoul 137-070 (KR). AHN, Sang, Chul [KR/KR]; 204-805 Ruwon Apt., Dongsan-dong, Youngdeungpo-ku, Seoul 150-045 (KR). KIM, Nam, Kyu [KR/KR]; 107-302 Siyoung Apt., Chungkye 1-dong, Nowon-ku, Seoul 139-785 (KR).			
(74) Agent: CHU, Sung, Min; Seoul Building, 114-31, Uni-dong, Chongro-ku, Seoul 110-350 (KR).			

(54) Title: METHOD AND APPARATUS FOR MEASURING SIMILARITY USING MATCHING PIXEL COUNT

(57) Abstract

A stereo disparity between a reference image and a search image for a reference pixel in the reference image is determined by (a) calculating a similarity measure between a reference window including a set of pixels centering on the reference pixel and each of a group of search windows in the search image which is of a same shape with the reference window and displaced from the reference window within a predetermined search range, wherein a matching pixel count, which is the number of pixels in the reference window which are similar in intensity to corresponding pixels in a search window, is used as the similarity measure between the reference window and the search window; and (b) determining a displacement between the reference window and a search window which yields a largest similarity measure as the stereo disparity for the reference pixel.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakhstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		